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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Administration
Bureau of Agricultural and Industrial Chemistry

QUARTERLY

NAVAL STORES REPORT

on

Production, Distribution, Consumption and Stocks

of

TURPENTINE AND ROSIN

of the

UNITED STATES

By Crop Years

Covering Quarter - April 1 - June 30, 1945

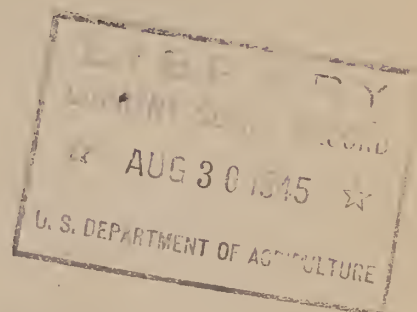
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Naval Stores Research Division



FOREWORD

In addition to its regular Annual and Semi-Annual Naval Stores Reports on production, consumption and stocks of naval stores, the Naval Stores Research Division has, at the request of some of the War Agencies, undertaken the issuance of quarterly reports. These reports are issued under Federal Act 278, authorizing and directing the Secretary of Agriculture to collect, compile and publish statistics and essential information relating to spirits of turpentine and rosin produced, held and used in the domestic and foreign commerce of the United States.

If production figures for this period are used as a basis for estimating this season's probable production, the fact that gum naval stores production is seasonal should be borne in mind. Wood naval stores production, on the other hand, is not seasonal but is based largely upon probable consumer demand and to some degree upon labor.

As in previous reports, carryover (stocks) of turpentine and rosin is separated into gum and wood products. Stocks of wood rosin do not include so-called "B wood rosin." While sulphate wood turpentine is carried in the regular production and carryover tables, data on "liquid rosin", tall oil, are in a table separate from gum and wood rosin. Pending the selection of a proper term, we continue to refer to the mixture of resin and fatty acids recovered by the acidification of the soap curds (black liquor soap) obtained in the production of sulphate pulp as tall oil. The tall oil so obtained contains approximately 42 percent of resin acids.

The data on production, consumption and stocks are expressed in commercial units: For turpentine - barrels of 50 gage gallons; and for rosin - drums of approximately 520 pounds net weight. A unit of naval stores consists of one barrel of turpentine and two and two-thirds drums of rosin. Carryover figures do not include gum turpentine or rosin producible from crude gum on hand.

Statistics on exports and imports of turpentine and rosin are not available for the current quarter but are shown for the corresponding three months' period of last year.

These reports are designed to be of use to the industry — producer, factor, distributor, and consumer. Every effort is made to obtain complete and accurate information but the completeness, accuracy and promptness of issue depend upon the cooperation of those reporting. In accepting the statistics given in this report, as well as those in previous reports, it should be borne in mind that the Bureau of Agricultural and Industrial Chemistry merely assembles the figures from the individual reports received and is not responsible for their accuracy.

The Bureau of Agricultural and Industrial Chemistry extends its thanks to those producers, factors, distributors, and consumers who have so kindly cooperated in furnishing the requested information. The assistance of Mrs. Clotilde E. Cubre in tabulating the data for this report is gratefully acknowledged.

SUMMARY OF TURPENTINE

SUPPLY, DISTRIBUTION AND CARRYOVER (Bbls. - 50 gals.)
(By naval stores seasons, beginning April 1 and ending March 31)

<u>1945-46</u>			<u>1944-45</u>		
<u>3 mos. (Apr. - June)</u>			<u>3 mos. (Apr. - June)</u>		
<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>

TABLE 1a - SUPPLY AND DISTRIBUTION

U. S. Carryover						
April 1 ^{1/}	202,546	168,011	34,535	295,581	262,057	33,524
Production ^{2/}	139,046	74,574	64,472	129,062	74,910	54,152
Imports	-- not available	--	--	4,523	4,523	---
Available Supply	341,592	242,585	99,007	429,166	341,490	87,676
Less Carryover						
June 30 ^{3/}	184,777	148,899	35,878	289,087	260,602	28,485
Appar. Total						
Consumption	156,815	93,686	63,129	140,079	80,888	59,191
Loss Exports	-- not available	--	--	12,253	7,624	4,629
Appar. U. S.						
Consumption	-- not available	--	--	127,826	73,264	54,562

TABLE 2a - CARRYOVER (Stocks)

U. S. Carryover						
April 1	202,546	168,011	34,535	295,581	262,057	33,524
U. S. Carryover						
June 30	184,777	148,899	35,878	289,087	260,602	28,485
Increase	---	---	1,343	---	---	---
Decrease	17,769	19,112	---	6,494	1,455	5,039

^{1/} From Table 4a. 1944-45 Annual Naval Stores Report.
^{2/} Table 5a.
^{3/} Table 4a.

SUMMARY OF ROSIN

SUPPLY, DISTRIBUTION AND CARRYOVER (Drums - 520 lbs. net)
(By naval stores seasons, beginning April 1 and ending March 31)

<u>1945-46</u>			<u>1944-45</u>		
<u>3 mos. (Apr. - June)</u>			<u>3 mos. (Apr. - June)</u>		
<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>

TABLE 1b - SUPPLY AND DISTRIBUTION

U. S. Carryover						
April 1 ^{1/}	388,266	265,881	122,385	794,786	648,206	146,580
Production ^{2/}	376,750	201,392	175,358	341,799	200,706	141,093
Imports	-- not available	--	--	0	0	0
Available Supply	<u>765,016</u>	<u>467,273</u>	<u>297,743</u>	<u>1,136,585</u>	<u>848,912</u>	<u>287,673</u>
Less Carryover						
June 30 ^{2/}	<u>383,979</u>	<u>250,958</u>	<u>133,021</u>	<u>711,777</u>	<u>570,495</u>	<u>141,282</u>
Appar. Total						
Consumption	381,037	216,315	164,722	424,803	278,417	146,391
Less Exports	-- not available	--	--	<u>76,755</u>	<u>66,191</u>	<u>10,564</u>
Appar. U. S.						
Consumption	-- not available	--	--	348,053	212,226	135,827

TABLE 2b - CARRYOVER (Stocks)

U. S. Carryover						
April 1	388,266	265,881	122,385	794,786	648,206	146,580
U. S. Carryover						
June 30	<u>383,979</u>	<u>250,958</u>	<u>133,021</u>	<u>711,777</u>	<u>570,495</u>	<u>141,282</u>
Increase	---	---	10,636	---	---	---
Decrease	4,287	14,923	---	83,009	77,711	5,298

^{1/} From Table 4b. 1944-45 Annual Naval Stores Report.

^{2/} Table 5b. Includes reclaimed rosin.

^{3/} Table 4b.

DETAILS AND SUMMARY OF TURPENTINE CARRYOVER (Bbls. - 50 gals.)

1945
JUN 30

1944
JUN 30

	<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>
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TABLE 3a - DETAILS OF TURPENTINE CARRYOVER (Stocks)

<u>Production Points</u> ^{1/}						
Gum Stills ^{2/}	29,482	29,482	---	28,019	28,019	---
Wood Plants						
Steam Dist.	6,578	---	6,578	6,495	---	6,495
Sulphate	5,173	---	5,173	4,003	---	4,003
Dest. Dist.	290	---	290	507	---	507
Total	41,523	29,482	12,041	39,024	28,019	11,005
<u>Sou. Concent. Points</u> ^{1/}						
Ports ^{3/}	29,375	29,375	---	120,520	120,520	---
Interior Yards	62,571	62,571	---	86,667	86,667	---
Total	91,946	91,946	---	207,187	207,187	---
<u>Distribution Points</u>						
Eastern	9,756	6,162	3,594	7,152	5,124	2,028
Central	14,440	10,872	3,568	13,334	9,934	3,400
Western	4,493	3,581	912	3,683	2,510	1,173
Total ^{4/}	28,689	20,615	8,074	24,169	17,568	6,601
<u>Industrial Plants</u> ^{5/}	22,619	6,856	15,763	18,707	7,828	10,879

TABLE 4a - SUMMARY OF TURPENTINE CARRYOVER (Stocks)

Production Points	41,523	29,482	12,041	39,024	28,019	11,005
Sou. Concent. Points	91,946	91,946	---	207,187	207,187	---
Distribution Points	28,689	20,615	8,074	24,169	17,568	6,601
Industrial Plants	22,619	6,856	15,763	18,707	7,828	10,879
Total in U. S.	184,777	148,899	35,878	289,087	260,602	28,485

- ^{1/} Irrespective of ownership. Some of the turpentine may have been sold and may be awaiting shipment.
- ^{2/} Compiled from reports by producers and factors.
- ^{3/} Official Board of Trade and Chamber of Commerce Reports.
- ^{4/} Compiled from reports of individual distributors.
- ^{5/} Compiled from reports of individual consumers.

DETAILS AND SUMMARY OF ROSIN CARRYOVER (Drums - 520 lbs. net)

1945
JUN 30

1944
JUN 30

	<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>
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TABLE 3b - DETAILS OF ROSIN CARRYOVER (Stocks)

<u>Production Points</u> ^{1/}						
Gum Stillis ^{2/}	42,923	42,923	---	79,473	79,473	---
Wood Plants						
Steam Dist. ^{3/}	48,019	---	48,019	60,397	---	60,397
Sulphate	---	---	---	---	---	---
Dest. Dist.	---	---	---	---	---	---
Total	90,942	42,923	48,019	139,870	79,473	60,397
<u>Sou. Concent. Points</u> ^{1/}						
Ports ^{4/}	12,614	12,614	---	61,228	61,228	---
Interior Yards	13,259	13,259	---	140,727	140,727	---
Total	25,873	25,873	---	201,955	201,955	---
<u>Distribution Points</u>						
Eastern	6,615	4,403	2,212	7,863	6,147	1,716
Central	4,362	2,464	1,898	6,546	5,048	1,498
Western	1,042	424	618	922	174	748
Total ^{5/}	12,019	7,291	4,728	15,331	11,369	3,962
<u>Industrial Plants</u> ^{6/}	255,145	174,871	80,274	354,621	277,698	76,923

TABLE 4b - SUMMARY OF ROSIN CARRYOVER (Stocks)

Production Points	90,942	42,923	48,019	139,870	79,473	60,397
Sou. Concent. Points	25,873	25,873	---	201,955	201,955	---
Distribution Points	12,019	7,291	4,728	15,331	11,369	3,962
Industrial Plants	255,145	174,871	80,274	354,621	277,698	76,923
Total in U. S.	383,979	250,958	133,021	711,777	570,495	141,282

- 1/ Irrespective of ownership. Some of the rosin may have been sold and may be awaiting shipment.
- 2/ Compiled from reports by producers and factors. Includes reclaimed rosin.
- 3/ Does not include by-products resulting from making paler grades from FF wood resin.
- 4/ Official Board of Trade and Chamber of Commerce Reports.
- 5/ Compiled from reports of individual distributors.
- 6/ Compiled from reports of individual consumers.

DETAILS OF PRODUCTION

(By naval stores seasons, beginning April 1 and ending March 31)

	<u>1945-46</u>			<u>1944-45</u>		
	3 mos. (Apr. - June)			3 mos. (Apr. - June)		
	<u>Total</u>	<u>Gum</u>	<u>Wood</u>	<u>Total</u>	<u>Gum</u>	<u>Wood</u>
Gum	74,574	74,574	---	74,910	74,910	---
Wood						
Steam Dist.	31,859	---	31,859	26,481	---	26,481
Sulphate	31,277	---	31,277	25,670	---	25,670
Dest. Dist.	<u>1,336</u>	<u>---</u>	<u>1,336</u>	<u>2,001</u>	<u>---</u>	<u>2,001</u>
Total	139,046	74,574	64,472	129,062	74,910	54,152

TABLE 5a - PRODUCTION OF TURPENTINE (Bbls. - 50 gals.)

<u>TABLE 5b - PRODUCTION OF ROSIN (Drums 520 lbs. net)</u>						
Gum	198,312	198,312	---	199,466	199,466	---
Reclaimed gum	3,080	3,080	---	1,240	1,240	---
Wood						
Steam Dist.	175,358	---	175,358	141,093	---	141,093
Sulphate	---	---	---	---	---	---
Dest. Dist.	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>
Total	376,750	201,392	175,358	341,799	200,706	141,093

TABLE 5c - PRODUCTION OF BLACK LIQUOR SOAP AND TALL OIL^{1/}

	<u>1945-46</u>	<u>1944-45</u>
Black Liquor Soap		
Reported as produced	54,949 tons	47,810 tons
Black Liquor Soap		
Reported as acidified	53,718 tons	34,572 tons
To produce according to reports		
Crude Tall Oil	26,075 tons	17,462 tons

^{1/} See foreword for definition.

TABLE 6 - PRODUCTION OF GUM TURPENTINE BY STATES^{1/}

	<u>1945-46</u> <u>3 mos. (Apr. - June)</u>		<u>1944-45</u> <u>3 mos. (Apr. - June)</u>	
	<u>Barrels</u>	<u>Percentage</u>	<u>Barrels</u>	<u>Percentage</u>
South Carolina	625	0.84	685	0.91
Georgia	55,777	74.79	51,325	68.52
Florida	13,198	17.70	17,467	23.32
Alabama	3,792	5.08	4,436	5.92
Mississippi	805	1.08	787	1.05
Louisiana	<u>377</u>	<u>0.51</u>	<u>210</u>	<u>0.28</u>
Total	74,574	100.00	74,910	100.00

TABLE 7 - MISCELLANEOUS NAVAL STORES (Bbls. - 50 gals.)

	<u>1945-46</u> <u>3 mos. (Apr. - June)</u>	<u>1945</u> <u>June 30</u>	<u>1944-45</u> <u>3 mos. (Apr. - June)</u>	<u>1944</u> <u>June 30</u>
	<u>Production</u>	<u>Stocks</u>	<u>Production</u>	<u>Stocks</u>
Pine oil	27,711	10,433	23,479	10,125
Pine tar	23,782	4,184	24,601	1,617
Rosin oil	6,717	2,028	6,685	2,383
Dipentene	5,001	4,607	4,409	2,077
Other monocyclic hydrocarbons	8,528	4,033	7,487	5,888

^{1/} A unit of naval stores consists of one 50-gallon barrel of turpentine and two and two-thirds drums (each 520 lbs. net) of rosin.

TABLE 8a - REPORTED CONSUMPTION OF TURPENTINE IN UNITED STATES (Bbls. - 50 gals.)

	1945-46			1944-45		
	3 mos. (Apr. - June)			3 mos. (Apr. - June)		
	Total	Gum ^{1/}	Wood ^{1/}	Total	Gum ^{1/}	Wood ^{1/}
Abattoirs	0			0		
Adhesives & plastics	75			162		
Asphaltic products	0			0		
Automobiles & wagons	57			57		
Chemicals & pharmaceuticals	32,320			32,067		
Ester gum & synthetic resins	5,413			5,200		
Foundries & foundry supplies	152			162		
Furniture	38			40		
Insecticides & disinfectants	5			66		
Linoleum & floor covering	10			13		
Matches	0			0		
Oils & greases	58			36		
Paint, varnish & lacquer	4,509			5,911		
Paper & paper size	0			0		
Printing ink	58			92		
Railroads & shipyards	2,635			2,482		
Rubber	327			17		
Shoe polish & shoe materials	2,828			3,782		
Soap	0			0		
Other industries	48			74		
Total industrial reported	48,533	9,391	39,142	50,161	17,036	33,125
Not accounted for ^{2/}	---	---	---	77,665	56,228	21,437
Apparent U. S. consumption ^{3/}	-- not available --			127,826	73,264	54,562

- ^{1/} Separation of gum and wood turpentine consumption will be limited for the present to the total reported.
- ^{2/} Principally unreported distribution of turpentine through retailers who sell in small quantities to ultimate consumers.
- ^{3/} From Table 1a, page 1.

TABLE 8b - REPORTED CONSUMPTION OF ROSIN IN UNITED STATES (Drums - 520 lbs. net)

	1945-46			1944-45		
	3 mos. (Apr. - June)			3 mos. (Apr. - June)		
	Total	Gum ^{1/}	Wood ^{1/}	Total	Gum ^{1/}	Wood ^{1/}
Abattoirs	117			202		
Adhesives & plastics	6,078			7,020		
Asphaltic products	550			564		
Automobiles & wagons	31			65		
Chemicals & pharmaceuticals	76,615			62,323		
Ester gum & synthetic resins	68,472			51,606		
Foundries & foundry supplies	4,623			4,861		
Furniture	1			2		
Insecticides & disinfectants	1,741			2,086		
Linoleum & floor covering	1,920			5,043		
Matches	364			359		
Oils & greases	8,736			12,519		
Paint, varnish & lacquer	27,112			33,100		
Paper & paper size	72,596			95,043		
Printing ink	1,807			4,880		
Railroads & shipyards	4,998			5,015		
Rubber	8,235			3,994		
Shoe polish & shoe materials	1,679			1,732		
Soap	72,963			94,888		
Other industries	1,410			1,179		
Total industrial reported	360,048	214,016	146,032	386,481	246,856	139,625
Not accounted for ^{2/}	---	---	---	- 38,428 -	- 34,630 -	- 3,798
Apparent U. S. consumption ^{3/}	-- not available --			348,053	212,226	135,827

- ^{1/} Separation of gum and wood rosin consumption will be limited for the present to the total reported.
- ^{2/} This discrepancy between the total industrial consumption reported and the apparent U. S. consumption is, no doubt, due in large part to errors in individual reports amplified by the change from the former barrel of 500 lbs. gross weight to the present drum of 520 lbs. net weight. Another factor may be the failure on the part of some consumers to distinguish between rosin and modified or derived rosins in their reports with a resulting duplication of reported consumption.
- ^{3/} From Table 1b, page 2.

ADDENDA

Additional information pertaining to naval stores may be obtained as follows:

For periods prior to 1942, for monthly, quarterly and annual reports on imports and exports of turpentine and rosin, address: Foreign Trade Statistics, Bureau of the Census, Department of Commerce, Washington, D. C. Price ten cents per copy.

For biennial census of the production of turpentine and rosin, address: Bureau of the Census, Department of Commerce, Washington, D. C.

For information on the Naval Stores Conservation Program, write to the Regional Forester, U. S. Forest Service, Glenn Building, Atlanta 3, Georgia.

For information on the southern forest survey showing turpentine timber resources, address: Southern Forest Experiment Station, Box 7295, Midcity Station, New Orleans 19, Louisiana.

For information regarding the production, distribution, consumption and stocks of turpentine and rosin, address: Naval Stores Research Division, Bureau of Agricultural and Industrial Chemistry, 2100 Robert E. Lee Boulevard, New Orleans 19, Louisiana.

